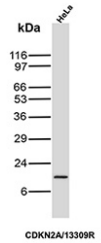
CDKN2A Antibody / p16INK4a [clone CDKN2A/13309R] (V5852)

Catalog No.	Formulation	Size
V5852-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5852-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5852SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

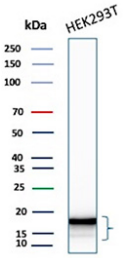
Recombinant RABBIT MONOCLONAL

Bulk quote request

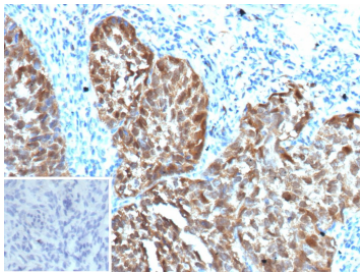
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CDKN2A/13309R
UniProt	P42771
Localization	Cytoplasm, Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This CDKN2A/p16INK4a antibody is available for research use only.



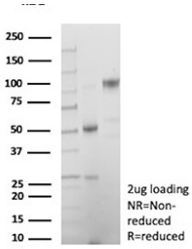
Western blot testing of human HeLa cell lysate using CDKN2A/p16INK4a antibody (clone CDKN2A/13309R).



Western blot testing of human HEK293 cell lysate using CDKN2A/p16INK4a antibody (clone CDKN2A/13309R).



Immunohistochemistry of CDKN2A / p16INK4a in human cervix tissue. Formalin-fixed, paraffin-embedded human cervix tissue was stained with p16INK4a antibody (clone CDKN2A/13309R). Predominant nuclear and cytoplasmic staining is observed in tumor epithelial cells, with surrounding stromal cells showing minimal background signal. Inset shows PBS used in place of the primary antibody as a secondary antibody-only negative control. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 minutes at 95Â°C followed by cooling at room temperature for 20 minutes.



SDS-PAGE analysis of purified, BSA-free CDKN2A/p16INK4a antibody (clone CDKN2A/13309R) as confirmation of integrity and purity.

Description

CDKN2A antibody targets p16INK4a, a cyclin-dependent kinase inhibitor encoded by the CDKN2A gene that functions as a critical tumor suppressor regulating cell cycle progression. p16INK4a inhibits cyclin-dependent kinases CDK4 and CDK6, preventing phosphorylation of the retinoblastoma protein and enforcing G1 phase cell cycle arrest. Through this mechanism, CDKN2A plays a central role in maintaining checkpoint control and limiting uncontrolled cellular proliferation.

p16INK4a, also referred to as Cyclin-dependent kinase inhibitor 2A in the literature, is a member of the INK4 family of CDK inhibitors and is closely associated with cellular senescence, oncogene-induced stress responses, and aging-related pathways. CDKN2A antibody is widely used in studies examining cell cycle regulation, tumor suppressor signaling, and proliferative control. p16INK4a is predominantly localized to the nucleus, although cytoplasmic staining has been reported depending on cell type and biological context.

Expression of CDKN2A is regulated by multiple mechanisms including epigenetic modification, transcriptional control, and oncogenic signaling cascades. p16INK4a antibody is therefore useful for investigating pathways related to senescence, growth arrest, and checkpoint integrity. Altered p16INK4a expression patterns are commonly examined in research focused on dysregulated proliferation and loss of tumor suppressor function.

In cancer biology research, CDKN2A is one of the most frequently studied cell cycle regulators due to its involvement in growth suppression and cellular aging. p16INK4a antibody is routinely applied in studies exploring tumor development, cell cycle dysregulation, and mechanisms underlying abnormal checkpoint control. Changes in CDKN2A expression are often evaluated as part of broader investigations into proliferative signaling networks.

This CDKN2A antibody, clone CDKN2A/13309R, is designed to detect p16INK4a expression in research applications. Clone CDKN2A/13309R supports studies of cyclin-dependent kinase inhibition, senescence-associated signaling, and cell cycle regulation involving CDKN2A.

Application Notes

1. Optimal dilution of the CDKN2A/p16INK4a antibody should be determined by the researcher.

2. This CDKN2A/p16INK4a antibody is recombinantly produced by expression in CHO cells.

Immunogen

Recombinant full-length human p16INK4a protein was used as the immunogen for the CDKN2A/p16INK4a antibody.

Storage

CDKN2A/p16INK4a antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.